(19) World Intellectual Property Organization

International Bureau



20 APR 2005

(43) International Publication Date 13 May 2004 (13.05.2004)

(10) International Publication Number WO 2004/039318 A3

- (51) International Patent Classification⁷: C07D 401/02. A61K 31/44, 31/47, 31/415
- (21) International Application Number:

PCT/US2003/033617

- (22) International Filing Date: 24 October 2003 (24.10.2003)
- (25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 60/421,438

25 October 2002 (25.10.2002)

- (71) Applicant (for all designated States except US): GENE-SOFT PHARMACEUTICALS, INC. [US/US]; 7300 Shoreline Court, South San Francisco, CA 94080 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): JONES, Peter [GB/US]; 15 The Hobbins, Bridgnorth, Shropshire, WVI55 HH (US). BURLI, Roland, W. [CH/US]; 3700 20th Street, Apt. 11, San Francisco, CA 94110 (US). JIANG, Chun [CN/US]; 77 Loucks Avenue, Los Altos, CA 94022 (US). MCMINN, Dustin, L. [US/US]; c/o GeneSoft Pharmaceuticals, Inc., 7300 Shoreline Court, South San Francisco, CA 94080 (US).
- (74) Agents: KEZER, William, B. et al.; Townsend and Townsend and Crew LLP, Two Embarcadero Center, Eighth Floor, San Francisco, CA 94111-3834 (US).

- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

of inventorship (Rule 4.17(iv)) for US only

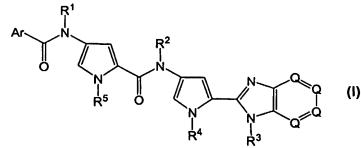
Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report: 15 July 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.







(57) Abstract: Compounds represented by the formula (I), where R1, R2, R3, R4,R5, and Q are as defined herein, exhibit activity against infectious pathogens.

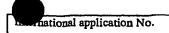
INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/33617

A. CLASSIFICATION OF SUBJECT MATTER IDC(T) - COTD 401/01: A61X 31/44 31/47 31/415					
IPC(7) : C07D 401/02; A61K 31/44, 31/47, 31/415 US CL : 544/280; 546/118, 139,192, 273.1; 514/258, 303, 307, 315, 338					
According to International Patent Classification (IPC) or to both national classification and IPC					
	DS SEARCHED				
Minimum documentation searched (classification system followed by classification symbols) U.S.: 544/280; 546/118, 139,192, 273.1; 514/258, 303, 307, 315, 338					
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched NONE					
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) CAS Computer Search 1947- To Date					
C. DOCUMENTS CONSIDERED TO BE RELEVANT					
Category *	Citation of document, with indication, where ap	propriate,	of the relevant passages	Relevant to claim No.	
Х, Р	WO 02/101073 A2 (GENESOFT, INC) 19 December 2002 (19.12.2002), see entire			1-24	
A	document US 5,808,087 A (MATSUNAGA et al) 15 September 1998 (15.09.1998), see entire document.			1-24	
	r documents are listed in the continuation of Box C.		See patent family annex.		
"A" documen	pecia. categories of cited documents: t defining the general state of the art which is not considered to ficular relevance	"T"	later document published after the in priority date and not in conflict with understand the principle or theory un	the application but cited to	
· ·	pplication or patent published on or after the international filing	"X"	document of particular relevance; the considered novel or cannot be consisted when the document is taken along	lered to involve an inventive	
	it which may throw doubts on priority claim(s) or which is cited ish the publication date of another citation or other special reason (fied)	«Y»	document of particular relevance; the considered to involve an inventive secombined with one or more other su	tep when the document is	
"O" documen	at referring to an oral disclosure, use, exhibition or other means		combination being obvious to a pers	on skilled in the art	
, , , , , , , , , , , , , , , , , , , ,			document member of the same paten	t family	
priority date claimed			nailing of the intermedianel		
Date of the actual completion of the international search		Date of mailing of the international search report 10.111N 2004			
19 February 2004 (19.02.2004) Name and mailing address of the ISA/US		Authorized officer			
Mail Stop PCT, Attn: ISA/US Commissioner for Patents		Authorized officer Zinna Northington Davis Januari Joul Telephone No. 703-308-1235			
P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230		Telephon	e No. 703-308-1235	for	
Form PCT/IS	A/210 (second cheet) (July 1998)	'			





PCT/US03/33617

Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)					
This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:					
1. Claim Nos.: 25 because they relate to subject matter not required to be searched by this Authority, namely: The recitation of the term "use" renders the claim non-statutory.					
2. Claim Nos.: because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:					
3. Claim Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).					
Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)					
 As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invit payment of any additional fee. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.: 					
4. No required additional search fees were timely paid by the applicant. Consequently, this international search reprise restricted to the invention first mentioned in the claims; it is covered by claims Nos.: Remark on Protest The additional search fees were accompanied by the applicant's protest. No protest accompanied the payment of additional search fees.	oort				